

AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 3, 4, and 9 as follows:

1. (Currently Amended): A purification catalyst for exhaust gas, comprising an aluminum oxide supporting a Pd oxide, wherein the aluminum oxide is LnAlO_3 in which Ln is a rare-earth element, and wherein crystal system of the aluminum oxide is trigonal or rhombohedral.

2. (Cancelled)

3. (Currently Amended): The purification catalyst for exhaust gas of claim 1 ~~or 2~~, wherein the Pd oxide contains at least Ln_2PdO_4 in which Ln is a rare-earth element.

4. (Currently Amended): The purification catalyst for exhaust gas according to ~~any one of claims 1 to or~~ 3, wherein the catalyst is produced by adding at least one kind of compound selected from the group of compounds of carboxylic acid having a hydroxyl group or a mercapto group and having a carbon number of 2 to 20, dicarboxylic acid having a carbon number of 2 or 3, and monocarboxylic acid having a carbon number of 1 to 20 to aqueous nitrate solution including a component.

5. (Original): The purification catalyst for exhaust gas according to claim 4, wherein the catalyst is produced by evaporating the aqueous nitrate solution completely, to produce a carboxylic acid complex polymer and by heating the carboxylic acid complex polymer.

6. (Original): A production method for a purification catalyst for exhaust gas, the method comprising:

preparing at least one kind of compound selected from a group of compounds of carboxylic acid having a hydroxyl group or a mercapto group and having a carbon number of 2 to 20, dicarboxylic acid having a carbon number of 2 or 3, and monocarboxylic acid having a carbon number of 1 to 20; and

adding at least one compound selected from the group to an aqueous nitrate solution including a component.

7. (Original): The production method for a purification catalyst for exhaust gas according to claim 6, the method comprising:

evaporating aqueous carboxylic acid completely to produce a carboxylic acid complex polymer; and

heating the carboxylic acid complex polymer.

8. (Original): The production method for a purification catalyst for exhaust gas according to claim 7, wherein a heating temperature in the heating of the carboxylic acid complex polymer is not more than 1000°C.

9. (Currently Amended): A purification catalyst apparatus for automobile exhaust gas having Pd oxide supported on Al oxide for purifying exhaust gas emitted from an automobile, wherein the Al oxide is LnAlO_3 in which Ln is a rare-earth element, and wherein crystal system of the aluminum oxide is trigonal or rhombohedral.